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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,203	03/25/2004	Toshimitsu Hirai	9319S-000716	5989
27572	7590	03/23/2006	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C.			KIM, SU C	
P.O. BOX 828			ART UNIT	
BLOOMFIELD HILLS, MI 48303			PAPER NUMBER	
			2823	

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/809,203	HIRAI, TOSHIMITSU	
	Examiner	Art Unit	
	Su C. Kim	2823	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 6-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5 and 9-11 is/are rejected.
- 7) ☒ Claim(s) 2-4,12 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/25/04 & 2/15/06</u> . | 6) <input type="checkbox"/> Other: _____ |

REMARK / ARGUMENT

By response to the restriction requirement mailed February 2006, Applicants provisionally elect the claims of Group II (claims 1-5 and 9-13), with traverse.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group II, claims 1-5 and 9-13, in the reply filed on 2/21/2006 is acknowledged. The traversal is on the ground(s) that all groups of claims are sufficiently related to each other that an undue burden would not be placed upon the examiner. This is not found persuasive because Group I (claims 6-8) is drawn to device, and Group II (claims 1-5 and 9-13) is drawn to method. Method and device are classified in two different classes, and two different search areas. Therefore, a burden would be placed examining all groups of claims upon the examiner.

The requirement is still deemed proper and is therefore made FINAL.

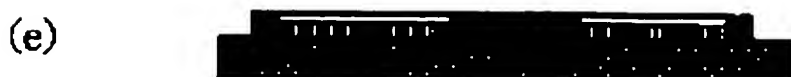
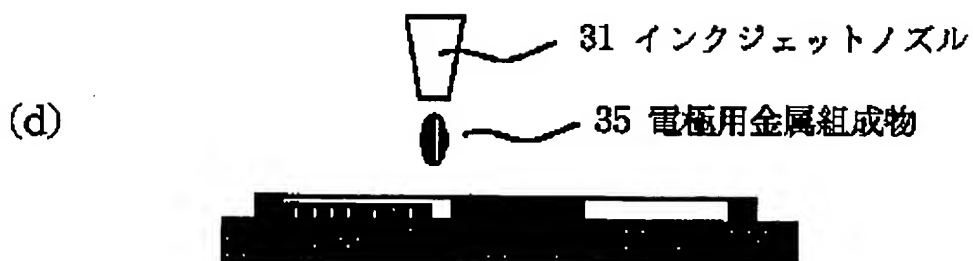
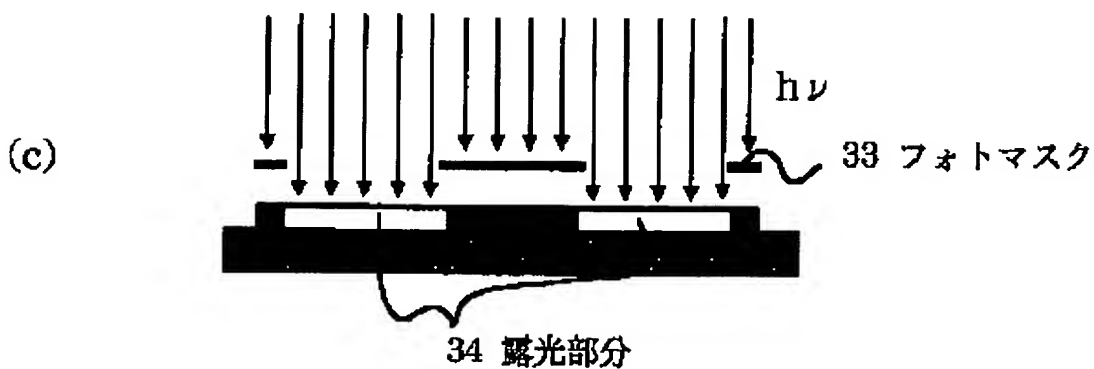
Claim Rejections - 35 USC § 102

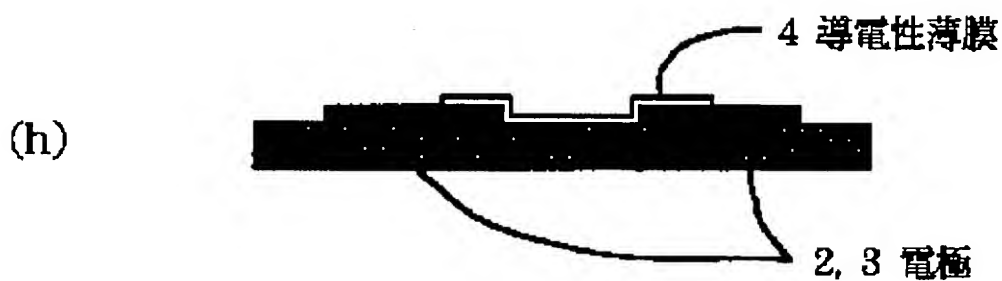
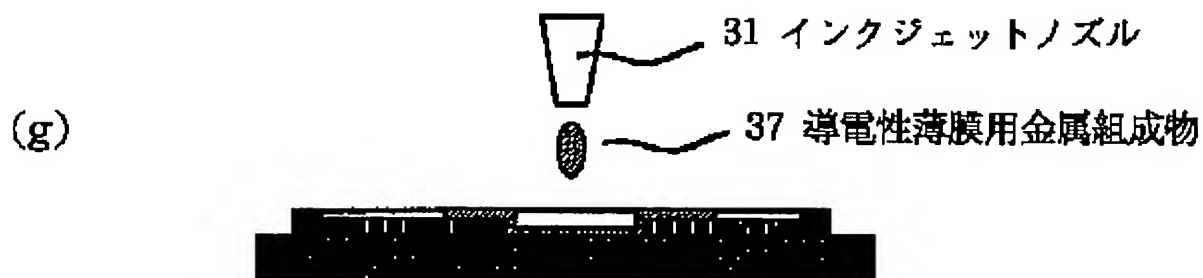
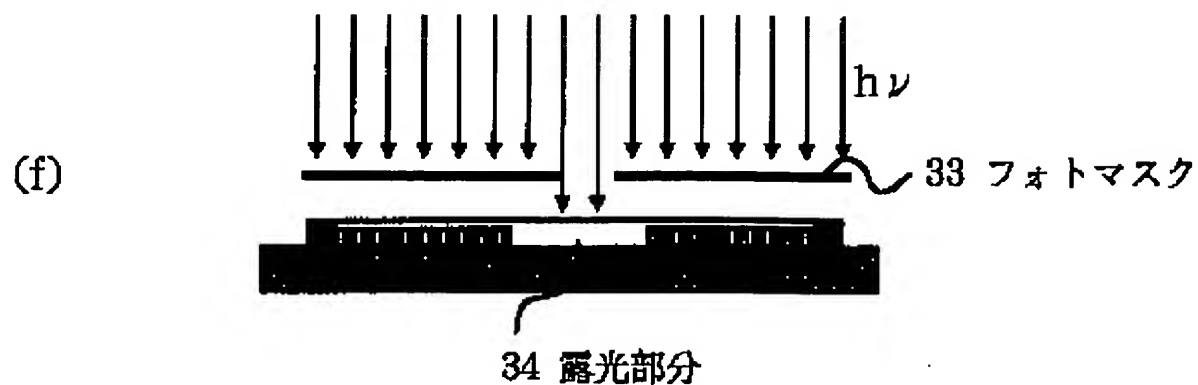
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5, 9, 10, & 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Kamishiro Kazuhiro (JP 2000-243254) ('hereafter Kamishiro')





Kamishro discloses a method for manufacturing electron emitters as claimed.

See all the FIGS where Kamishro teaches the following limitations

1. Pertaining claim 1, Kamishro discloses a method for manufacturing electron emitters by providing pairs of element electrodes, and conductive layers connecting the element electrodes to each other on a substrate, the method comprising:

a step of forming banks **32** surrounding electrode-forming regions for forming the element electrodes **2 & 3** and conductive layer-forming regions **4** for forming the conductive (**Drawing. 2 & 3**)

a step of discharging first droplets toward the electrode-forming regions (**Drawing 2 (a)-2(e)**);

and a step of discharging second droplets toward the conductive layer-forming regions (**Drawing 3-(g)**).

2. Pertaining claim 5, Kamishro discloses an electron emitter manufactured by the method according to claim 1. (**Product by rejected process claim, see rejected claim 1**)

3. Pertaining claim 9, Kamishro discloses a method for manufacturing an electron emitter

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comprising:

defining a pair of spaced apart electrode **2 & 3** forming regions on a substrate (**Drawing 2 (c)-(d)**);

defining a conductive layer-forming region on the substrate, the conductive layer **4** forming region interconnecting the electrode-forming regions (**Drawing 3 (h)**);

forming a bank **32** encircling the electrode-forming regions and the conductive layer forming region (**Drawing 2-(c)**) ;

discharging first droplets **35** toward the electrode-forming regions to form a pair of element electrodes (**Fig. 3 (d)**); and

discharging second droplets **37** toward the conductive layer-forming regions to form a conductive layer connecting the element electrodes to each other (**Drawing 3-(g)**).

4. Pertaining claim 10, Kamishiro discloses the method of claim 9, further comprising treating a portion of the conductive layer **4** to form an electron-emitting section **5**.

5. Pertaining claim 11, Kamishiro discloses the method of claim 9, further comprising removing the bank after the conductive layer and element electrodes are formed (**Drawing 3-(g) to 3(h), the blank 32 has been removed**).

Allowable Subject Matter

Claims 2-4 & 12-13 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Conclusion

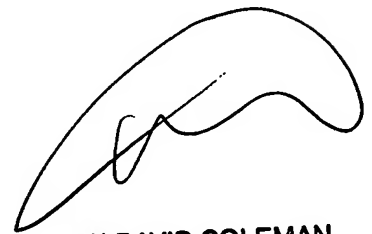
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Su C. Kim whose telephone number is (571) 272-5972. The examiner can normally be reached on Monday - Thursday, 9:00AM to 7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Su C. Kim
03/18/2006

A handwritten signature in black ink, consisting of a large, sweeping loop followed by a smaller, more intricate flourish.

W. DAVID COLEMAN
PRIMARY EXAMINER